

Remarks

The present application is a continuation of application number 10/198,559. The present application includes claims 1-32. By this preliminary amendment claims 1-21 and 32 have been canceled, claims 22 and 27 have been amended, and new claims 33-35 have been added.

Applicant submitted an After Final Amendment during the prosecution of application number 10/198,559. An advisory action was received in response to the amendment which stated the proposed amendments would not be entered because they raised new issues that would require further consideration and/or search. Consequently, the Applicant has amended the claims in the present application to reflect the amended claims submitted in the After Final Amendment in the application number 10/198,559 so that the claims may be considered by the Examiner.

Applicant has amended independent claims 22 and 27 to more clearly recite cooling a grinding wheel using a cooling jacket thermally coupled to a shroud. Applicant has also added new claims 33-35 that recite cooling a grinding wheel using a cooling jacket in thermal contact with a shroud.

The limitations in the amended claims and new claims are similar to the limitations in issued U.S. Patent No. 6,425,540 which is a divisional of the present application.

In the parent application (application number 10/198,559), the Examiner cited Gardner (U.S. Patent No. 984,758) and Contal et al. (U.S. Patent No. 4,383,650) as relevant art. Applicant respectfully submits that the claimed invention is not disclosed or suggested by Gardner or Contal.

As depicted in Figure 1 of Gardner, rubber material is ground by pushing a box 1 to force rubber material against a revolving wheel 2. As rubber material is ground by wheel 2, the rubber material is guided into a box 34 by a casing 33 that covers wheel 2. Friction between the wheel 2 and the rubber material produces excess heat that may impair the rubber grinding process. To remove the excess heat, the revolving wheel 2 is cooled by air flowing through holes in the wheel 2. Cooling air flows into the holes 8 located in the sides of wheel 2. The cooling air flows out of the holes 9 located on the periphery of wheel 2.

Because the holes 9 are located on the periphery of wheel 2 and contact the rubber material, the holes 9 are susceptible to becoming clogged with ground rubber material. If the holes 9 become clogged with ground rubber material, cooling air will no longer flow through the wheel 2. Without the flow of cooling air, the excess heat between the wheel 2 and rubber material may impair the rubber grinding process.

Gardner does not disclose or suggest cooling a grinding wheel by cooling a shroud that surrounds a grinding wheel. As depicted in Figure 1, Gardner does not cool the grinding wheel 2 by cooling the casing 33. Gardner teaches cooling the grinding wheel 2 with air flowing through holes 8,9 in grinding wheel 2. Consequently, Gardner

does not disclose or suggest cooling a grinding wheel using a cooling jacket in thermal contact with a shroud.

Likewise, Contal does not disclose or suggest the claimed invention. As depicted in Figure 1 of Contal, rubber material is ground between a fixed plate 1 and a rotating plate 2. Fixed plate 1 is cooled by water flowing through a chamber delimited by end plate 11 and the upper face 10 of the fixed plate 1. Rotating plate 2 is cooled by water flowing through a passage 23 and passage 25. As rubber material is ground by the fixed plate 1 and rotating plate 2, it is evacuated peripherally from the plates.

Contal does not disclose or suggest cooling a grinding wheel by cooling a shroud that surrounds a grinding wheel. The invention of Contal does not even disclose the use of a shroud. Contal teaches cooling plates 1, 2 with water directly in contact with the plates. Consequently, Contal does not disclose or suggest cooling a grinding wheel using a cooling jacket in thermal contact with a shroud.

Consequently, the Applicant has amended independent claims 22 and 27 to more clearly recite cooling a grinding wheel using a cooling jacket thermally coupled to a shroud. Applicant has also added new claims 33-35 that recite cooling a grinding wheel using a cooling jacket in thermal contact with a shroud.

Thus, the Applicant respectfully submits that amended independent claims 22 and 27, and their respective dependent claims 23-26 and 28-31, and new claims 33-35 should be in condition for allowance.

Conclusion

The Applicant looks forward to working with the Examiner to resolve any remaining issues in the application.

If the Examiner has any questions or the Applicant can be of any assistance, the Examiner is invited and encouraged to contact the Applicant at the number below.

The Commissioner is authorized to charge any necessary fees or credit any overpayment to the Deposit Account of McAndrews, Held & Malloy, Account No. 13-0017.

Respectfully submitted,

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